

BARG Newsletter January 2025

Ballarat Amateur Radio Group Inc. #6953T
January 2025 Monthly Newsletter
“A Summer Sunrise, Cape Clear”

Next General Meeting BARG inc
11:00am, Saturday 25th January 2025
At the Airport - All Welcome

Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>



Contents

Contents.....	2
President's Report January 2025	3
SINGAPORE CELEBRATES	3
The Next BARG General Meeting	4
VHF and Above for January 2024	5
Radio Hams Help Get A Father's Message Home After Vanuatu Quake.....	6
BARG HAMVENTION 2025 BE THERE!	9
Deutsches Museum 100 years old,DLØDM 75 years old.....	11
German 6Meter Band Temporary Access	13
WWFF 2025 Marathon Rules.....	14
RADIO D.A.R.C. TO BROADCAST OUT OF ENGLAND FROM JANUARY 2025	16
Magazine Reviews	17
QST Magazine Review January 2025.....	17
Silicon Chip Review January 2025	20
Sprat Review Winter 2024/2025	21
BARG 80m HF Net Control Station Roster	22

Front Page Contributor Craig VK3KG, "A Summer Sunrise, Cape Clear"

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.grz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503





President's Report January 2025



With just under 2 weeks to go until Hamvention for this year there are some things to be aware of for members.

These are possibly printed elsewhere in this newsletter so I will keep it as short as possible.

Volunteers:

This event does not run without the help of Volunteers. If you are a member and have not done so, please fill out

Hamvention Volunteers form available on the website. We need help to setup on the Saturday before and help on the Sunday especially at the end of the day.

Club table:

If you have anything for the club table, it needs to be to the Clubrooms for the January General Meeting on Saturday 25 th . If it is of decent value, you may bring it on the day of Hamvention but we will need details preferably by the general meeting so we can setup the spreadsheet used for the Club table.

We are still looking for ideas for talks after the Club general meeting, if you have something you want to present or have an idea for a talk, please let any of the committee members know.

See you all on Saturday the 25 th of January for the General meeting at 11am.

Cheers, 73's Ben VK3NRD

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Ian Fairweather VK3YFD
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Mal White VK3OAK
Ordinary Member	Paul Black VK3TXR		

SINGAPORE CELEBRATES

Celebrating the 60th anniversary since Singapore became an independent republic back on the 9th of August 1965.

Singapore Amateur Radio Transmitting Society's members are allowed to replace their normal prefix (9V1) with the special prefix S60 from now, January through until August 9.



**Ballarat Amateur Radio Group Inc.
(BARG)**

HAMVENTION

Sunday February 2 2025

At the Ballarat Polo-Crosse Club's
Facility, Ballarat Airport

Display and Sales (setup from 8am on the day)

Trade Table \$20.00 includes one admission,
(Space for 70+ tables, this is a big one!)

General Admission \$ 7.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available

Enquiries and up to date details: BARG on the web
www.barg.org.au

The Next BARG General Meeting **Saturday 25th of January 2025** **11:00am**



If you have any stories, projects, journeys that we would find interesting.

Anything topical to Amateur Radio, electronics, operating gear, communications, history, photographs.

Just a few lines and if possible some pictures will be a good start to a suitable article

Email to tomvk3dmk@gmail.com

VHF and Above for January 2025

Well, it's the start of another year and as always we hope for good radio conditions and that special contact we hope to have so good luck to you all.

So far as I can tell the overall situation for the higher frequency bands has its ;been poor for most of us. There hasn't been all that much happening on 6 metres and above with a few exceptions on 6mx. I've been doing some monitoring of loggers and apart from some short openings my view is overall there's not much to comment on. If you have experienced otherwise, then let me know or post your own observations in this newsletter.

In relation to 2 metres and above I'm only aware of a few times when propagation has been good. For me I did have contacts with VK5AKK in the Adelaide Hills on 2m, 70cm and 23cm a couple of weeks ago. I'm also aware that some VK3's have had WSPR signals into VK6 on 23cm as well but for SSB very little.

If you have the capability and enthusiasm there is the VHF/UHF Field Day coming up on 18th January, so check the WIA website for details.

On another note, I had an experience with a fellow amateur on 40m 7.135MHz recently when I put out a CQ and a station answered my call with a comment saying I was 35Hz off frequency. I replied with a signal report, name and location etc and asked the station was his equipment GPS locked and did he have the use of RIT. He responded with what's GPS locked, and he hadn't ever used RIT. I guess I'm being a bit cynical but there are definitely two generations of operators out there. When you look at the exam papers that were around in the 1960's as has been discussed recently we had to know stuff in those days.



Till next time 73 Ian VK3AXH

YOU MAY HAVE NOTICED OVER THE LAST COUPLE OF NEWSLETTERS SOME AI, ChatGPT, HAS CREPT INTO THE NEWSLETTER.

AI WILL ONLY BE USE FOR IMAGE/GRAPHIC APPLICATIONS AND NOT FOR ANY WRITTEN CONTENT.

2 (a) Assisted by a sketch indicate the ionospheric layers which exist during the hours of :-

- (i) daylight,
- (ii) darkness.

(b). Explain the meaning of the term maximum-usable-frequency (M.U.F.). Explain why this frequency is not constant over a long period.

Radio Hams Help Get A Father's Message Home After Vanuatu Quake



By [Beau Greenway](#) Printed here with permission from Beau and The Border Mail.



Wodonga amateur radio operator Steven Wilson was hosting a gathering on the airwaves when a mayday call came through from Vanuatu on Tuesday, December 17. Picture by James Wiltshire

A group of amateur radio operators from the NSW-Victoria border region has helped ensure a message reached Australia after a devastating earthquake in Vanuatu.

Steven Wilson, based in Wodonga (call sign VK3SMW), was hosting a weekly net, a regularly scheduled gathering on the radio by [amateur radio operators](#), on Tuesday night, December 17, when those tuned in could hear a faint "mayday, mayday, mayday" call.

Operators stopped what they were doing to listen closely and confirmed it was a distress signal.

A fellow ham, Abe Wilson, based at Traralgon, in Victoria's Gippsland, was able to contact the man about 7.45pm. He was attempting to get a message from Vanuatu's capital, Port Vila, to his family in Brisbane.

[The 7.2-magnitude earthquake](#) has killed 14 people and injured more than 200.

Abe spoke to Colin Joli, an Air Vanuatu pilot who had survived the earthquake, and passed on his stepdaughter's phone number in Brisbane to Abe so he could let her know he was safe.

A state of emergency and a mass casualty event has been declared in Port Vila on the island of Efate, Vanuatu.

After the phone call, at about 8.15pm, he reconnected with Mr Joli in Port Vila to confirm the message had been received.

"I wasn't quite sure I was hearing it right, but we all went quiet, and we could hear it, and we tried to get his call sign. He was calling out for help because of the earthquake in Vanuatu," Steven said.

"It's the first time I've ever come across that as an amateur radio operator.

"This is why, during natural disasters, they rely on us guys. We're self-sufficient, so we can get messages through. It's a great thing.

"I think we all did a good job.

"It's devastating what happened in Vanuatu. We wish them all well."



Traralgon licensed amateur radio operator Abe Wilson made contact with a man in Vanuatu attempting to get a message back to family in Brisbane after a 7.2 magnitude earthquake hit the Pacific nation's capital, Port Vila, on Tuesday, December 17. Picture Supplied.

Emotional connection

Abe, who uses the call sign VK3ABE, has been an amateur radio operator for nearly 30 years and said it was the first time he had answered a mayday contact.

"Nobody else could get back to him, so I transmitted and asked him to move frequency, and I got him on another frequency," Abe said.

"He came back to me in very good, plain English and said he had no other communications, and he gave me his stepdaughter's telephone number in Brisbane.

"She answered the phone and was a bit shocked, wondering who I was. I passed on the information that I had been talking to her stepfather via the radio.

"Both of us got very emotional because she had been trying to contact authorities with no result, and her stepfather was trying to get messages to her.

"She was absolutely over the moon to hear the good news.

"Once I finished with her, I went back to the radio and talked to the gentleman in Vanuatu. I told him I'd made the contact, and he was over the moon.

"It was all done via amateur radio. There were no computers or internet, just radio frequency signals."

Abe said operators expected more mayday calls on Wednesday night, December 18.



Steven Wilson operates his amateur radio system from his garage in Wodonga. Picture by James Wiltshire

'A great community'

Steven is on the committee of the North East Victoria Amateur Radio Club. The group has 40 members and holds monthly meetings to promote the hobby.

"It's a great community, and everyone helps everyone out. If you don't know something, ask a question, and I'm sure there's someone who has a bit more knowledge and can put you on the right path," he said.

"I've been into radio since I was young. My dad had an old valve receiver in the shed and we used to play around with that.

"I met a gentleman who was an amateur radio operator when I was 12 or 13, and I was amazed by all the equipment he had and all the exotic stations I was listening to.

"I got into CB radio when it was booming and was out of it for a long time, but then I got into amateur radio, and it was the best thing I've done."



Steven Wilson in front of his antennas which allow him to transmit and tune into amateur radio frequencies all around the world. Picture by James Wiltshire

Endless possibilities

Steven admitted it's an expensive hobby, and he'd "hate to know" how much he has spent on installing antennas and equipment to operate on the airwaves.

"I have a directional antenna on a tower, and I use a rotator to turn it where I want to. I can talk to people all around the world," he said.

"You've got to be licensed and sit an exam. It's all governed by the Australian Communications Media Authority.

"You're allocated frequencies you're allowed to operate on through the radio spectrum.

"It's a good hobby to be in, and I've met many folks. It's amazing to be able to communicate with the world.

"You can talk to a space shuttle when they do a fly-over. It's only brief, but it is possible."

Steven said he had contacted operators in 118 countries, as well as Antarctica.

For more information about North East Victoria Amateur Radio Club, visit nevarc.org.au.

COMMONWEALTH OF AUSTRALIA POSTMASTER-GENERAL'S
DEPARTMENT

AMATEUR OPERATORS' CERTIFICATES OF PROFICIENCY

SECTION M (Theory) AUGUST 1967

1. With the aid of a circuit diagram describe the operation of a transmitter suitable for amateur operation in the V.H.F. band (30- 300 Mc/s).

BARG HAMVENTION 2025 BE THERE!

Greetings members,

In 1984 the call went out. Now in 2023, that great tradition, the BARG Hamvention is almost upon us.

Here is some up to date member related information:

Item 1

Do you have a small amount of equipment, that is begging for sale to others but not enough to justify hiring your own table? Then consider putting it on the BARG sponsored table.

It will cost you a very modest 10% commission of the sale price, and suddenly you will have some cash to put towards some other radio gear.

All you have to do is:

- Gather your item(s)
- Make the equipment / Item available at the General Meeting 25th Jan onwards and drop off at the clubroom or on Saturday 1st Feb from around 2pm or early on Sunday 2nd of February (before 9:30 appreciated when the general public is admitted)
- Ensure the item is labelled with a full description of the item, your name, and contact information.
- You need to identify the price that you want to sell the item at and the reserve price. This will provide the table managers with negotiation information.
- Please also indicate what you want done with the equipment should it not be sold.

Nothing is too big or too small to be considered. So start rummaging through your shacks now.

Item 2

To be successful, the Hamvention needs your assistance on the day.

Volunteer for 3 or more time slots and get \$FREE entry for the entire day. Between your allocated roles, fossick through the treasure trove of tables, haggle and secure a bargain. How's that for a good deal?

The link below leads to a form seeking your support on the day.

<https://docs.google.com/forms/d/e/1FAIpQLScKT0aKq7M2ivED141I4ap-NhRrXXz0hUiLgeEJnvITxu2KWw/viewform>

This form requests time slots and specific roles though it may be necessary to juggle and fine tune dependent upon needs. (You can also find this form at <https://www.barg.org.au/>

We also need assistance on the day before, Saturday 1st of February to set up. No specific tasks, we just need your body.... now when was the last time you heard that line? Use the same form above to indicate availability.

Colin/VK3NCC on behalf of the BARG Hamvention Sub-Committee

Deutsches Museum 100 years old, DLØDM 75 years old

Article with help from contributor Luise Allendorf-Hoefer, DL4LA.
Curator of communications technology and electronics

Deutsches Museum



The Deutsches Museum is one of the largest and most traditional science and technology museums in the world. The Deutsches Museum was opened on Munich's Museum Island on May 7, 1925, and we can celebrate its 100th birthday in 2025.

Exactly 75 years ago, on December 20, 1949, the Deutsches Museum was granted a license by the Central Telecommunications Office in Darmstadt to operate the club station with the call sign DLØDM. The “amateur broadcasting license”, which was granted under legal legitimacy, is therefore only a few months younger than our constitution.

After amateur radio was generally banned shortly after the start of the war in 1939, radio amateurs were keen to resume radio operations soon after the war ended.

Until 1949, radio and telecommunications sovereignty was the responsibility of the Allies, but from 1946 onwards the US military government tolerated amateur radio operations.

Radio amateurs' efforts to operate on a legally secure basis resulted in the Amateur Radio Act [AFuG] being passed during the military government's time. It came into force in March 1949 and is therefore even older than our constitution. In an amended form, it still exists today. A short excerpt from the current text of the law clarifies the purpose of amateur radio, which is internationally defined and bindingly established up to the UN level:



“Amateur radio service is a radio service that is used by radio amateurs among themselves, for experimental and technical-scientific studies, for their own further education, for international understanding and for supporting relief operations in emergencies and disasters...”

Since 1989 the station has been in permanent operation in the middle of the exhibitions. Around 20 OM and YLs from the DARC handle the daily operation as well as they teach our visitors the basics of radiotechnology and inspire enthusiasm for this interesting technical hobby.

Throughout the anniversary year, the Deutsches Museum will operate the special call DL100DM and thus carry out more activities, especially during the anniversary week in May. But we are already on the air every day at least between UTC 10:00 - 11:00 h. Depending on who is OP, either DL0DM or DL100DM will be used.

Under this link you will find our recently published blog post on the existence of the club station (unfortunately only in German).

<https://blog.deutschesmuseum.de/2024/12/16/dloedm-amateursendelizenz-so-alt-wie-unser-grundgesetz>),



Perhaps the photos will give you an impression of our station.
Images with compliments of the Deutsches Museum.

The Melbourne March 2025 luncheon

**will be held at the Caulfield RSL on Thursday 27th March
at 1200 hours for a 1230 start.**



The speaker will be Nigel Holmes VK3DZ.

**His presentation is titled
*Radio Australia, CSIR and the ionosphere.***



Synopsis.

The role of the Shepparton International High Frequency Transmitting Station (IHFTS) in carrying Radio Australia for 74 years is known to many. Less well known is its role in research of the ionosphere and reflecting HF transmissions from the Moon's surface. The illustrated talk will outline the research and the mechanisms used to achieve this feat.

**The Caulfield RSL offers a two course meal at a cost of \$36.00 per head.
Soft drink, beer, wine and other drinks can be purchased from the bar.
Tea and coffee can be purchased downstairs.**

RAOTC members are welcome to bring friends, but we must have firm bookings and payment to RAOTC, PO Box 107, Mentone 3194, or payment by EFT with bookings by email with guests names to raotc@raotc.org.au no later than **Wednesday 19th March 2025.**

Despite an increase in costs, we have been able to keep the price at \$36.

Bookings are essential.

Our bank details are: BSB: 633000. Our account number is: 195768379.

Other payment options can be found at: <https://www.raotc.org.au/howtopay.htm>

We will not be able to accept payment on the day.

Note: Tea and coffee will now not be included but can be purchased downstairs.

German 6Meter Band Temporary Access

The German regulatory office for telecommunications has granted temporary access for 6 metres for Class E licence holders at 100 watts between 50 and 50.4 MHz and using reduced power of 25 watts between 50.4 and 52 MHz on a non-interference basis.

The trial period lasts until December of 2025 for Class E amateurs.

According to the regulator's announcement, full licence holders are receiving extended access to 6 metres at the same power levels and 70.150-70.210 MHz in the 4-Metre band at 25 watts of power on a trial basis until December 2026.

WWFF 2025 Marathon Rules

* Purpose: Make as many QSOs as possible to/from WWFF nature reserves globally and activate as many of them as possible during the year 2025.

The marathon encourages the enjoyment of the outdoors and hiking, along with increased awareness of nature and the importance of conserving it.

* Time: 1.1.2025 00:00 UTC – 31.12.2025 23:59 UTC

* Sprints: Every calendar month is viewed as a separate “sprint”. Results and top standings will be announced for each sprint, in addition to the full-year Marathon results.

* Modes and bands: All amateur radio modes and bands

* Categories: A) activator, H) hunter. In other words, you can participate in the marathon from A) WWFF nature reserves and/or H) your home station.

* QSOs: Those in category A can work any station. Those in category H work only stations that are in WWFF nature reserves (they often sign /P). Only QSOs uploaded to the WWFF database count towards awards.

* Prize lottery: The Marathon’s sponsors have kindly agreed to provide a number of prizes for participants. These prizes are subject to a lottery draw, for which tickets are accumulated during the Marathon as follows:

Hunters: one lottery ticket for every 10 QSOs in the annual total

Activators: two lottery tickets for every 44 QSOs in the annual total and two tickets for each WWFF reference activated

Periodic updates of accumulated tickets will be provided throughout 2025. The lottery draw will be performed in a live Google Meet event at the beginning of 2026.

The prizes are:

- [Three lots of 1,000 QSL cards by LZ1JZ QSL Print](#)
- [Two one-year CLUB-level \(multi-user\) licenses for Web Radio Control](#)

* Logging: All relevant QSOs will be found in the logs of those in category A, so those in category H don’t need to send a log. Participants in category A should send their logs to their national WWFF log manager in regular fashion, latest on January 10, 2026.

* Results standings Tables for activators and hunters will be available and automatically updated during 2025 on [a dedicated Marathon page](#).

* Photos: Participants are encouraged to photograph the WWFF nature reserves they visit, for the enjoyment of the entire amateur radio community. Photos will be collected



at <https://cuf.fi/wwffphoto> and they may be used in WWFF awards and other WWFF-related communication, with credit to the photographer.* Awards:

Hunters

WWFF Pillar Hunter for working WWFF activators on at least 180 calendar days during the year

For number of WWFF QSOs during the year: 244, 1,044, 2,044, and 3,044

For number of DXFF (i.e., DXCC countries, with at least one WWFF reference worked in each) during the year: 44

For number of KFF states/territories + VEFF provinces/territories + VKFF states/territories during the year: 44



Activators

WWFF Pillar Activator for activating at least one WWFF reference every month

For number of WWFF QSOs during the year: 244, 1,044, 5,044, and 10,044

For number of confirmed P2P QSOs during the year: 44, 144, and 244

To facilitate the special award processing, we ask the activators – especially when using vanity / special event calls or group calls – to make sure the operator field in their logs is populated with their home callsign.

* Special events: The Marathon includes events sponsored by WWFF and its national programs. They create focused WWFF presence on the bands and encourage P2P QSOs between activators:

- 8-9 March: WWFF's 12.5-year anniversary
- 15-16 March: [KFF Spring Fling](#)
- 7-8 June: OHFF Park Rally
- 21-22 June: [KFF Mosquito Madness](#)
- July weekends: [FFF July Challenge](#)
- All of August: WWFF August Activity Month
- GREENFEST, first Sunday of August
- September: GxFF Autumn Activity
- 11-19 October: [KFF Earth Science Week](#)
- 22-23 November: [VKFF Activation Weekend](#)
- 27-28 December: [KFF Winter Chill](#)

* **Contact for further information:** marathon@wwff.co (forwards to Kim OH6KZP and Jakob OZ7AEI)

* Sponsors: We would like to warmly thank the prize sponsors of the WWFF 2025 Marathon: If you are interested in WWFF, check this link below.

<https://www.wwffaustralia.com/>

RADIO D.A.R.C. TO BROADCAST OUT OF ENGLAND FROM JANUARY 2025

(from ICQ Podcast, Practical Wireless News Feb 2025) and Rainer DF2NU

For almost 10 years, RADIO D.A.R.C. (Deutscher Amateur Radio Club) have used the ORS transmitter in Moosbrunn near Vienna for its short-wave broadcasts on Sunday mornings.

This was due to stop at the end of the year 2024 as the station will be shut down. All attempts to save the site have failed, the Austrian Broadcasting Corporation wants to finally and completely give up the 'short wave' business segment, which allegedly no longer fits into its business model, by 31 December 2024.

The situation is somewhat different in Woofferton, England, around 50km west- southwest of Birmingham. The BBC broadcasting complex that exists there is operated by the subsidiary company ENCOMPASS MEDIA and has a total of 10 transmitters and just as many antennas.

RADIO D.A.R.C. announces that effective 1st January 2025, a new broadcast contract has been agreed with the Woofferton short wave station.

Contract negotiations were successful, and the D.A.R.C. General Council approved the agreement and the budget on the 16 November 2024.

Radio D.A.R.C.'s program was due to be heard from England for the first time on Sunday, 5 January 2025, on the frequency of 9670 kHz (one of the previously used frequencies of ORS). 125kW transmission power will be used into a 4-over-4 curtain antenna facing 105° towards Germany.

The ERP of this configuration is almost 4 million watts.

The familiar transmission on 6070kHz in the 49m band will continue to be present as the Radio D.A.R.C. program will be transmitted again with 10kW transmission power from 'Channel292' near Ingolstadt in Bavaria (Channel-292 is owned and operated by amateur radio operator Rainer Ebling DBSQC).

The continuation of the national society's radio program on shortwave is thus secured for the time being.

Radio D.A.R.C. thank the employees of ORS GmbH & CO KG, in particular Ernst Vranka OE3EVA, for the many years of very benevolent and active support. We wish them all the best for their impending retirement.



BBC Transmitting Station, Woofferton, England

Since we changed to the Woofferton transmitters in the UK, there were several reception reports from Australia, too.

Our frequency 9670 kHz comes through sometimes, we use 125 kW and a 4 over 4 curtain array directed to 105 degrees.

This is exactly the beam to VK !

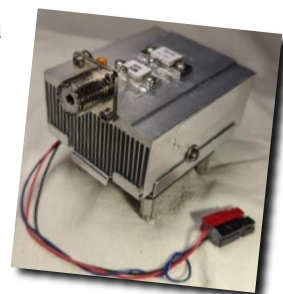
RADIO DARC is a 1-hour weekly technics magazine from the German Amateur Radio Club broadcasted on SW broadcast band. It contains DX news, technical reviews and reports from science and technology, interviews with experts and so on.

73's Rainer DF2NU

Magazine Reviews

QST Magazine Review January 2025

- P9 Second Century. State of the bands as the cycle appears to be getting to its peak. Some antenna stories and sunspots.
- P13 Members Spotlight. Ham radio and vanlife, travelling the highways and byways with amateur radio to pro and con, antenna erection and camping sites.
- P20 Upfront. Reports from amateurs travelling the world and and a book that started one persons journey to amateur radio.
- P30 100+ W Low-Cost Dry Dummy Load. Build a medium- to high-power dummy load that's good for up to 225 or 450 MHz. A load built on a CPU heatsink along with cooling fan.
- P33 The RAS3 Wi-Fi Project. This update to WA9FVP's RAS2 controller provides Wi-Fi interfacing and better internet security. Using an ESP32 makes remote control of the shack rig that little bit easier.
- P38 Looking at the Sun. K7LY discusses whether big peaks in daily sunspot numbers or the solar flux index are reliable indicators of good propagation. Reviewing, analysing the past solar activity and what the future could bring.
- P41 Product Review. Uniden SDS100 Handheld Communications Receiver. Takes up to a 32Gb SD card and with two USB ports makes this receiver a very handy device. Coverage spans 25 to 1300 MHz in several bands. Additionally, the SDS100 supports digital trunked radio systems in various formats, including APCO P25 Phase I and II, Enhanced Digital Access Communication System (EDACS), and Logic Trunked Radio (LTR). Of course, it also receives analog FM and AM.
- P45 Product Review. PowerFilm Solar Foldable Solar Panels. PowerFilm solar panels are monolithically integrated, meaning that they are manufactured in layers. The foldable, 60W peak, solar panels are lightweight, durable, and extremely portable. The solar



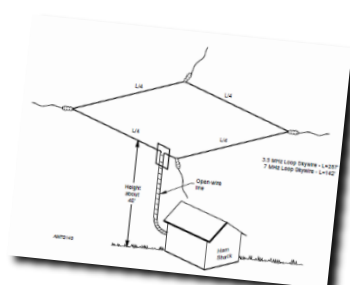
panels are mounted to weather-resistant fabric that quickly folds for storage and unfolds for use.

- P49 Radioddity HF-008 HF Mobile Antenna. The HF-008 is designed to perform on nine amateur bands including 80, 40, 30, 20, 17, 15, 12, 10, and 6 meters. The manufacturer also claims resonance on 11 meters (CB band). The HF-008 is not self-supporting, it is rated at 200 W PEP on SSB and 100 W on CW. In short, the package contains everything you need to get on the air with a portable installation quickly, except some sort of base mounting setup.



- P51 SOTABEAMS Carbon-6 Ultra-Light Telescopic Mast. The SOTABEAMS Carbon-6 Ultra-Light Telescopic Mast extends to just over 19 feet and collapses to 17 inches, making it ideal for portable operators. It's built from carbon fiber, designed for ham radio, and is perfect for lightweight antenna setups made with #26 Stealth wire.

- P53 Ask Dave. An Antenna for 80, Tuning Up, and Signalink Setup. One wavelength 80-meter horizontal antenna loop at 272 feet setup procedure. Using the Signalink Integrated USB Sound Card.



- P55 Hints & Hacks. A Stealth Antenna for 6 Meters; An Alternate Use for Lids. Soup cans for 6M, making a vertical dipole of stacked cans.

- P57 Microwavelengths. Microwave Activity Days. Reports on previous microwave days and activities.

- P59 275 Arkansas POTA Activations. New ham KI5GTR activated every POTA park in his state. Report on a very successful POTA expedition.

- P62 Building a Sisterhood through SOTA. An annual Summits on the Air campout in Oregon's Cascade Range provided an opportunity for a women's activation. A campout and SOTA activation by a team of YL operators.



- P66 Building a Radio Go-Box. A simple radio build you can take anywhere. Getting all the necessary components for a Amateur Radio Emergency Service based Go-Box.

- P68 ARRL Teachers Institute: Looking Back, Moving Forward. In 2025, the evolving professional-development program is restructuring to provide educators with more course availability and resources. Programs and equipment donations towards this promising endeavour.



- P71 IARU Celebrates 100 Years. The International Amateur Radio Union (IARU) is the worldwide federation of national amateur radio organizations. IARU membership consists of more than 160 member-societies in as many countries and separate territories. List the activities over the following months.

- P72 Happenings. Sierra Harrop, W5DX, sharrop@arrrl.org NCVEC Question Pool Committee Removes Two Pool Questions from Use. Two questions removed as they each have two correct answers. Results of the 2024 ARRL US/IARU Region 2 Radio Orienteering Championships. Pacificon 2024. 2024 Hiram Percy Maxim Memorial Award.

P75 Public Service. The 2024 Great ShakeOut ARCIM: A Map for Hams, by Hams. The 2024 Great ShakeOut — a popular worldwide annual earthquake drill (www.shakeout.org) — was held on October 17, 2024.

P78 Exam Info. The ARRL VEC Program's Future. The 2025 ARRL VEC Exam Fee Remains \$15 for Adults and \$5 for Youth. The ExamTools Platform Offers Four Options for Exam Sessions:

1. Remote video-supervised test sessions with online exams.
2. In-person test sessions with online exams.
3. In-person hybrid test sessions with some online exams and some paper exams.
4. In-person test sessions with all ExamTools-generated paper exams (with automated grading).

P80 2024 ARRL International Digital Contest Results. The ARRL International Digital Contest was held June 1 – 2, 2024.

P82 The ARRL February School Club Roundup. This event begins on Monday, February 10, 2025, at 1300 UTC and runs through Friday, February 14, 2025, at 2359 UTC.

P84 Club Station. Behind the Scenes of Starting a Ham Club. Where to Begin Making It Legal Getting the Word Out DAARS Activities Inaugural Costs.

P86 Ham Media Playlist. Digital Rancher — Making Amateur Radio Satellite Contacts. A look at the digital world and amateur satellites and the gear involved.

P88 How's DX? The 2024 CY9C Dxpedition to St. Paul Island. From August 24 to September 5, 2024, 11 members of the CY9C team huddled on St. Paul Island, a windswept, 3-milelong island located about 15 miles northeast of Nova Scotia's Cape Breton Island and about 44 miles southwest of Newfoundland's Cape Ray.

P90 The World Above 50 MHz October 6-Meter F2. Report on a occurrence of F2 propagation and its effect on the 50MHz band.

P98 Classic Radio. Building a 1965 HeathKit SSB Transceiver Kit in the 21st Century. Re-kitting an already built kit, to bring it back to original performance.



3. (a) Aided by a circuit diagram describe the operation of a full-wave H.T. power supply which uses silicon rectifiers.

(b) Discuss any precautions you would take in the use of silicon rectifiers, including their operation in series.

4. Draw a circuit diagram of the modulated amplifier and audio frequency states of a 150 watt transmitter employing plate modulation. Describe fully how modulation is obtained.

5. (a) Draw a circuit diagram of a heterodyne type frequency meter suitable for use in an amateur station. Explain its theory of operation.

(b) Under what circumstances would you use :-

- (i) an absorption wavemeter, (ii) a heterodyne type frequency meter, (iii) lecher wires?

Silicon Chip Review January 2025

- P2 Editorial: 3G shutdown, 4G and NBN.
- P12 Data Centres, Servers and Cloud Computing. David VK3DSM. If you ever wondered where all that information about you and the world is stored, this article will help. Defining what these are and do, it explains how they do it and where some of the major locations are.
- P27 Digital Capacitance Meter. A piece of test gear that can measure capacitors from 10pF to 10,000uF, it uses through hole parts for easy construction and a compact OLED display, all operating from a 9V PP3 battery.
- P33 Compact HiFi Headphone Amplifier. Part 2. Nicholas Vinen. The final installment showing the PCB assembly, inductor construction and mounting of the output transistors.
- P39 Circuit Notebook. Programmable current indicator add-on for USB power banks. LED Voltmeter/Ammeter, measuring from 3.3V to 30V. Handbag Light.
- P42 Precision Electronics. Part 3. Difference & Instrumentation Amplifiers. A very descriptive explanation on understanding and how to work with the many variants of this versatile amplifier.
- P48 Mini Projects #018. Gesture-Controlled USB Lamp. Tim Blythman. Using a unique module to make a simple sensor to turn on a light with the wave of your hand.
- P55 Mini Projects #019. Tim Blythman. The Big Clock. Making a large 7 segment clock display with WS2812 RGB LED strips.
- P60 5MHz 40A Current Probe. Andrew Levido. A bi-directional Hall Effect and Current Transformer probe that can be used with a scope. Uses the ACS37030 Allegro IC. Powered by a 14500 Lithium Cell.
- P68 Battery-Powered Model Train. Les Kerr. Using a pair of 433MHz remote control units to remotely operate a model locomotive, either track powered or battery powered motor. Explanation of wireless control system and construction for a model.
- P80 Using Electronic Modules with Jim Rowe. TCS230-based colour Sensor. How to use this module with a UNO and get readings out via the serial port.
- P84 Extracting ROM data from old microcontrollers. Dr Hugo Holden. Methods and hardware to extract data from ROM. A construction article of a circuit to accomplish the endeavor.
- P90 Serviceman's Log. Dave Thompson. Cisco WAP371 Access Point, bench grinders, Ryobi electric lawn mower.
- P96 Vintage Radio. The Monarch "All American Five" Wedge radio. Ian Batty. A 1930's radio with point to point wiring and five valve construction all fitted into small chassis, with a ferrite rod antenna.



Sprat Review Winter 2024/2025

P2 Editorial: Steve, G0FUW. 50th Anniversary Convention report and the SPRAT Extra. Next 2025 QRP Convention, 12th April 2025.

P3 2024 G3RJV Memorial Trophy Winner. Martin, M0HKG. The winner Daimon G4USI, Runner-up Andrew W5AWS.

P4 G-QRP 50th Anniversary Convention 2024. Vic, GW4JUN and Lee, G4EJB. A look at the successful days, with exhibits and the Buildathon along with several speakers presenting QRP related talks.

P7 Regenerative Receiver 80 – 12M. Ernst, F5LVG. Construction of a low component count receiver with plug in band select coils and a switchable trap to minimise 80M and 41M band broadcast stations.

P9 Modest Station Wins GQRP Award. Ryan, G5CL. Winner Martyn M0HGG after being issued with Certificate of merit for 25 DXCC areas, was given the Modest Station Award.

P10 Dead-Bug Style 40M 'Bayou Jumper'. Frank K3DZ. A classic construction method of a kit 40M transmitter in a tin.

P12 12V Regulator + a Limiter. Ian, G4COL. A discrete component 12V regulator and current limiter project, using MOSFETs and 5V reference.

P14 ZL to VK (3000km) with 7 Components. Eric ZL2BMI. A simple non component specific circuit, details about its construction history and performance.

P16 My Elecraft K2 Contest Upgrade. Roelof, PA0RDT. Modifications and user history of this rig, including its USB port and pan-adapter port.

P20 TEN-TEC Argonaut 509 Digital Display. Mike, G8GYW. Adding a frequency counter module for ease of frequency determination.

P19 The MBO 5W CW Transmitter. Steve, G0FUW. A QRP rig, in a can in the spirit of the OXO transmitter but with full 5W and some upgraded components.

P21 Blinkin'eck – an LED flasher. David G4COE. A simple flashing LED in an unconventional configuration.

P22 High Quality Large Rotary Encoders. Andy, G0POY. Utilising currently available encoders and controls to control our digital rigs. What is quadrature output and how does it work.

P25 Simple Local Remote Operation. Chris, G3XIZ. Using some small, simple and readily available 433MHz Tx and Rx modules to work as basic remote control for the shack.

P29 Update on the 8M FT8. Roger, G3XBM. Using the 8M band for propagation studies and communication.

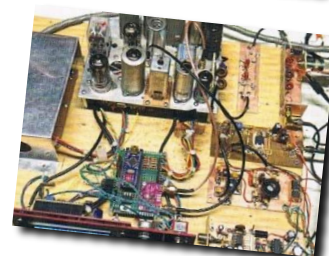
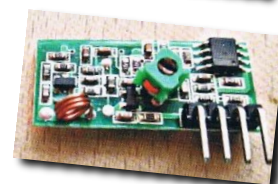
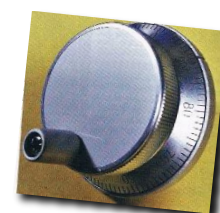
P30 Ready for Winter Sports. Andy M0RON. Preparing for the QRP Winter Sports, the gear used by Andy.

P31 Valved QRP News. Paddy, G4MAD. Reports and pictures of valve gear used some members and their experiences.

P34 Sales Team Update. Main point of contact is now Dan, M7JJO.

P34 Club Badges – A Plea For help. A call for a new supplier as the previous one has retired.

P35 Members news. Chris, G4BUE. News and pictures from around the world of members gear and operations in the shack or in the field.





BARG 80m HF Net Control Station Roster

BARG Net runs from 2000 hrs every Thursday night on 3608 kHzs+ QRM. And follows on from the CLIPBOARD NET WHICH COMMENCES AT 1930 HRS

Date	Operator	Backup	Comment
2 Jan 2025	Terry VK3UP	Ian VK3AXH	
9 Jan 2025	Ian VK3AXH	Paul VK3TXR	
16 Jan 2025	Paul VK3TXR	Doug VK3DRE	
23 Jan 2025	Doug VK3DRE	Scott VK3MCL	
30 Jan 2025	Scott VK3MCL	Robert VK3ARM	
6 Feb 2025	Robert VK3ARM	Craig VK3KG	
13 Feb 2025	Craig VK3KG	Terry VK3UP	
20 Feb 2025	Terry VK3UP	Ian VK3AXH	
27 Feb 2025	Ian VK3AXH	Paul VK3TXR	
6 Mar 2025	Paul VK3TXR	Doug VK3DRE	
13 Mar 2025	Doug VK3DRE	Scott VK3MCL	
20 Mar 2025	Scott VK3MCL	Robert VK3ARM	
27 Mar 2025	Robert VK3ARM	Craig VK3KG	
3 Apr 2025	Craig VK3KG	Terry VK3UP	
10 Apr 2025	Terry VK3UP	Ian VK3AXH	
17 Apr 2025	Ian VK3AXH	Paul VK3TXR	
24 Apr 2025	Paul VK3TXR	Doug VK3DRE	
1 May 2025	Doug VK3DRE	Scott VK3MCL	
8 May 2025	Scott VK3MCL	Robert VK3ARM	
15 May 2025	Robert VK3ARM	Craig VK3KG	
22 May 2025	Craig VK3KG	Terry VK3UP	
29 May 2025	Terry VK3UP	Ian VK3AXH	
5 Jun 2025	Ian VK3AXH	Paul VK3TXR	
12 Jun 2025	Paul VK3TXR	Doug VK3DRE	
19 Jun 2025	Doug VK3DRE	Scott VK3MCL	
26 Jun 2025	Scott VK3MCL	Robert VK3ARM	
3 Jul 2025	Robert VK3ARM	Craig VK3KG	
10 Jul 2025	Craig VK3KG		



Ballarat Amateur Radio Group Inc
Registration Number A0006953T
ABN 44 247 200 143
Application for Club Membership

This completed document should be emailed to the Secretary at BARG@BARG.ORG.AU, or brought along to a face to face meeting.

Surname: _____ Given Names: _____

Callsign: _____

Are you a financial member of WIA?: Yes No

Partner's Name: _____

Residential Address: _____

Postcode: _____

PostalAddress: _____
(If different to above) Postcode: _____

Telephone;
(Work) _____ (Home) _____ (Mobile) _____

EmailAddress _____

Unless otherwise requested, Newsletters and Club information will be sent to your email address. If the Club decides to publish a Club Directory, are you willing to have the above information included? Please indicate: **Yes No**

By applying for membership I indicate my support of the purposes of the Association and agree to comply with the Association rules in effect.

Applicant's Signature: _____ Date: _____

Proposed By: _____ Callsign: _____ Date: _____

Seconded By: _____ Callsign: _____ Date: _____

--ooOoo--

Presented to Committee: _____ Decision: Accept / Reject

Fee Paid: \$ _____ Date: _____ Receipt No(if applicable:) _____

Entered into Membership Register: _____ Secretary: _____